Multi Unit Residential Building Charging Program: Phase 2 Application Guide

Updated March 27, 2017

A program funded by the Province of British Columbia and managed by Fraser Basin Council

Fraser Basin Council

We are pleased to announce Phase 2 of the Multi Unit Residential Building Charging Program. Funded by the Province of British Columbia, and administered by Fraser Basin Council, this program supports the cost and installation of electric vehicle supply equipment (EVSE), informally known as charging stations, in existing multi unit resident buildings (MURBs). The information provided in this guide outlines the eligibility and application process, and provides all necessary program details.

If you have any questions you can contact Ryan Davis, Program Coordinator at Fraser Basin Council:

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Program Description & Eligibility Requirements

The Multi Unit Residential Building Charging Program is part of the Clean Energy Vehicle (CEV) Charging Infrastructure Program funded by the Province of British Columbia. The purpose of this particular program is to support the purchase and installation of electric vehicle charging stations in multi unit residential buildings (MURBs) in British Columbia, and to assist in reducing the barriers for current and future electric vehicle adoption.

Eligible applicants (See Application Eligibility Requirements below) across British Columbia can apply to receive a rebate of **75% of total eligible costs up to $4,500 per Level 2 charging station**, if approved for participation.

Applicants can apply for a maximum of two Level 2 charging stations, but you may only be approved for one to ensure the program funds are adequately distributed. Single port stations count as one charging station and dual port stations count as two charging stations. As such, applicants who apply for a dual port station or two Level 2 charging stations would receive a rebate of 75% of total eligible costs up to $9,000. Applicants are assessed on a first-come first-served basis. **Applications will be accepted until August 15, 2017 or until funds are fully allocated**.

Successful applicants will be required to provide project updates including a mandatory status report by August 15, 2017. If applicants do not provide information for this required status report they will be removed from the program, and their spot will be given to another applicant. Successful applicants will be given direction as to what information will be required for the update(s) (including, for example, have applicants received strata approval, and what work has been performed to-date).

Important resources for applicants include:

- What a revenue grade meter is and what expected costs are
- Strata bylaw and user agreement templates for EV charging on the Navigating Stratas page
- FAQ page

Applicant Eligibility Requirements

- The program is open to individuals that reside in an eligible MURB or to parties authorized to make decisions regarding an eligible MURB (See MURB Eligibility Requirements below). *Note electricians and contractors cannot apply for this program on behalf of the resident or strata/property manager.*
    - This includes a building owner, manager, resident or other building representative;
    - It is essential that the proper authority grant permission for the charging station to be installed. HOWEVER, this approval can come after applying;
    - If the applicant is not the owner of the building, written approval from the building owner or strata council must be provided by August 15, 2017 to be eligible for the incentive (i.e. you can still apply without strata approval, but approval must be granted by August 15, 2017);
    - Only one application will be accepted per property;
    - **A quote for work to be completed is required in order to apply**, from a licensed electrician or electrical contractor
        - This quote **must be line itemized and include all work to be performed to meet program requirements**. See Charging Station Requirements for more information.
        - Of particular importance are these requirements:
            - Level 2 charging station(s)

        - If stations are not networked stations a dedicated revenue grade meter must be installed
        - Over-sized conduit with a capacity of at minimum six stations at 40A each
        - Labour
        - All applicable permits
        - Additional materials not listed above
    - Applicants may choose to hire a different contractor than the one quoted in the application (i.e. the applicant is not locked into the contractor from which the initial quote was received).

MURB Eligibility Requirements

- Eligible MURBs are multi unit residential buildings that have **3 or more** self-contained dwelling units.
    - Are located in British Columbia
        - This includes multiple resident buildings, and mixed-use buildings. For example stratas, condos, apartments, some town homes, and housing co-ops.
    - The charging station is for residents or future residents of these buildings.
    - If there is a commercial component as part of the building, restrictions should be in place that prioritizes residential access to the charging station(s).

Charging Station Requirements

- For a charging station to be eligible for the program the station must:
    - Be a **Level 2 station** (208/240 volt), featuring a SAE J1772 plug (See Manufacturer & Supplier List);
    - Be purchased, not leased;
    - Be installed by a licensed electrician (work to be completed under appropriate permit and installed to meet Canadian Electrical Code requirements);
    - Have **activated communication and data tracking abilities OR be connected to a dedicated revenue grade meter** for the charging station or group of stations. See Networked vs. Non-Networked for more information;
    - Be approved for sale and use in Canada (i.e. cUL, cETL, CSA certification);
    - Be in operation at the project location for five years.

- Applicants must install **over-sized conduit capacity** capable of supplying at minimum a total of six Level 2 charging stations rated at 40A each. This includes the charging stations being installed as part of the project (Read the FAQ on why).
    - As a condition of receiving funding, applicants are **required** to have an electrician install an appropriate sized conduit (i.e. over-sized) capable of supplying at minimum a total of six Level 2 charging stations rated at 40A each (includes the stations being installed) or the total number of parking stalls, whichever comes first;
    - This conduit is for current and future EV growth and should be run to provide future service to all parking stalls, 30m into the parking area, or halfway into the parking area whichever comes first;
    - Only one over-sized conduit is required per panel regardless of the number of EVSE being installed on the same panel. If the parking area has several levels and multiple panels that EVSE is connected to then an over-sized conduit is required for each panel;
    - Only the conduit is required for future charging stations. However, it is recommended that contractors run wire for all future charging stations at this time to decrease future costs;

    - Although no wiring is required for the future charging stations, the wiring for the station(s) being installed at this time must be de-rated to comply with code for when the future stations are installed;
    - Junction boxes are to be installed at intervals for future runoffs;
    - A label stating "FOR USE WITH ELECTRIC VEHICLES ONLY" shall be posted in conspicuous places at the service panel/sub-panel and along the conduit raceway.
- Some buildings might not have the electrical capacity for present or future charging stations. In these cases load managed stations offer the ability to install charging stations by managing the electrical consumption of each station.

Important Dates and Deadlines

Applications will be accepted on a first-come first-served basis. The program is open for applications between March 27, 2017 and August 15, 2017. Applicants who are not initially approved will be put on a waitlist. As space becomes available, waitlisted applicants will be notified.

- March 27, 2017 – Applicants can begin to apply. Fraser Basin Council will respond to applicants as quickly as possible, but please allow for up to 30 days to receive a response. Applicants will either be accepted into the program, waitlisted, required to provide additional information, or denied if they don't meet program eligibility requirements.
- August 15, 2017 – All successful applicants will be required to provide information on the status of the project. This will include information on what work has been completed or when work will begin. Applicants who did not initially have written strata or building owner approval, must provide proof (e.g. letter from strata/property manager) that approval has been granted. Applicants that fail to provide this information will lose their place in the program.
- August 31, 2017 – Final intake date for waitlist. Applicants on the waitlist will be contacted if space is available to participate. Only waitlisted applicants who have received strata approval by August 31, 2017 will be approved.
- November 30, 2017 – Submission deadline for applicants to complete the final report. Rebate cheques will be issued within 30 days if there are no issues with the report. Applicants will be contacted if additional information or clarification is required.

Charging Station and Installation Costs

Eligible costs include, but are not limited to:

- The cost of the charging station equipment;
- Materials required for installation of the charging station (INCLUDES wiring for future charging stations);
- Labour and construction costs for installation of the charging station;
- Electrical or other permits;
- Electrical or parking area design plans;
- Signage;
- Costs occurring AFTER* the program launch date (March 27, 2017) and BEFORE the project deadline November 30, 2017.
    - *Exception will be given for successful applicants who were charged a fee to conduct the initial quotation. This cost can be included in the total eligible costs.

Ineligible costs include, but are not limited to:

- Painting of parking area;
- Installation of non-EVSE infrastructure (e.g. 110V outlet for vacuum cleaner);

- Communication costs between property management and residents (e.g. notices, letters, etc.);
- Copy or documentation fees;
- Monthly or annual subscription fee;
- Taxes paid on the labour, charging station, material, and any other associated costs;
- Costs occurring BEFORE the program launch date (March 27, 2017) and AFTER the project deadline November 30, 2017;
- Costs for charging infrastructure that are already required under building codes or other program or regulatory requirements.

How to Apply

1. Get a quote from a contractor for purchase and installation of charging station(s) that meets program requirements.
2. Fill out the online Application Form.
3. Await approval (up to 30 days).
4. Complete your project by **November 30, 2017** (Note, a status report is required by August 15th)
5. Submit a final report. **Information on the final report is emailed to applicants when they are approved for the program**. Once this is submitted and approved you'll receive a rebate cheque in the mail.

FAQ

When does the program end?

- All installations and paperwork **must be submitted by November 30, 2017** in order to qualify for the rebate cheque.

Who can apply to the funding program?

- The program is open to individuals that reside in a MURB or to parties authorized to make decisions regarding the building. This includes a building owner, manager, resident or other building representative. It is important that permission be granted to install a charging station by the appropriate authority. The person or company that applies for the funding program must be the person or company who pays for the station and installation costs. The rebate cheque will be issued to this person or company.

What residential buildings are eligible?

- Multi unit residential buildings across British Columbia are eligible to apply.
- For buildings to be considered for the program there must **3 or more** self-contained dwelling units. These include multiple resident buildings, and mixed-use buildings. The charging station is for residents or future residents of these buildings. If there is a commercial component as part of the building, restrictions should be in place that allows only a resident to utilize the charging station.
- However, condo-resorts or similar buildings where a building is providing accommodations for non-residents are not eligible for this program. The program is intended for residents of British Columbia.
- Only buildings that completed construction and were occupied before March 27, 2017 will be considered for the program.

Can I install more stations than I was approved for?

- Applicants can install any number of stations, but will only be eligible to receive reimbursement for the number of stations they were approved for.
- For example, if an applicant applied for 2 stations and received approval for 1, the applicant can still install a 2nd station. However, any costs (material, labour, etc.) associated with the 2nd station must be removed from the submitted receipts.
- See the FAQ on eligible costs for more information.

Who owns the charging station?

- The ownership of the charging station is a matter that should be discussed between tenants and property owners/councils. Fraser Basin Council does not require a specific party to own the station. However, the applicant will be the one who is issued the rebate cheque.

Do I need to have an electric vehicle in order to apply for the funding program?

- No, all may apply even if there are no electric vehicle owners in the building.

Once I submit the funding application can I purchase the charging stations?

- Do not purchase the charging stations until after your application has been approved. In some cases the number of charging stations you applied for may not be the number approved for funding. Additionally, the funds available for the entire program may be fully allocated in which case you'd be put on a waitlst.

How long does it take to install a charging station in my building?

- The actual installation of the charging station typically takes a day to several days. However, additional time will likely be spent gathering necessary approval and permits to install the charging station(s). We recommend beginning the work with your council or property managers as soon as possible as it could take several months to gain approval for the project.

If my building received a previous incentive for the installation of a charging station can I still apply for this program?

- No. Having received a previous incentive disqualifies you from this program.

Do visitor parking spaces count towards the total number of parking spaces the application asks for?

- Yes, all parking spaces available must be counted. The total number of dedicated residential parking spaces versus the total number of visitor parking spaces must be made clear.

How much does it typically cost to purchase and install a charging station?

- The cost and installation of a Level 2 charging station varies. Costs can increase if a parking stall is located some distance from the electrical room, how much coring through walls or trenching through pavement contractors have to do, and the type of Level 2 charging station you choose (See Networked vs. Non-Networked stations for more information).
- Below is a table that is meant to give an idea of what costs might be associated with a project. This is meant to be a guide in understanding where project costs can come from.

Description	Quantity	Cost, each ($)	Total ($)
Labour (hours)			
Site Visit	2	80.00	160.00
Permit	2	80.00	160.00
Installation	12	80.00	960.00
Approval	2	80.00	160.00
Labour Sub-Total			1,440.00
Materials			
40A Charging Station	1	Under $1,000 for non-network stations (not including the required meter) $1,000 - $4,000.00 for networked stations	4,000.00
40A Breaker	1	40.00	40.00
Wire	200	0.66	132.00
Conduit	45	4.30	193.50

40A Fused Disconnect	1	120.00	120.00
Miscellaneous	1	250.00	250.00
Materials Sub-Total			4,735.50
Permit	1	250.00	250.00
Total			6425.50

What is a revenue grade meter and how do I install one?

- Not all meters are the same. Some meters are more accurate in measuring electricity consumption than others. As a requirement of this program, if the charging station you install does not have data tracking capabilities you must install a dedicated revenue grade meter (i.e. charging stations must have their own meter and should not be wired directly to the residential meter)
- If you wish, this can be a BC Hydro meter. You can do this directly through your BC Hydro account.

    1. Log into your account.
    2. Near the top of the page you should see a menu item "Moving & Electrical Connections", hover your mouse over this item
    3. Select "Construction & Renovations: Add/Modify Electrical Connections"
    4. Click on "Start Connection Request"

- If you have any questions or concerns you can call BC Hydro's Express Connect Centre at 1-877-520-1355

Is there enough electricity in the B.C. grid to power EVs?

- Yes, the number of EVs on the road represents less than 1% of all registered vehicles in BC. Even if all vehicles were to be replaced by EVs overnight, the demand on the grid would only increase by 19% over current base load. This is well in-line with the available capacity. Additionally, BC Hydro, in planning for future growth, is accounting for the electrical demand by EVs.

What charging stations are eligible for the program?

- For a charging station to be eligible for the program the station must:
    - Be a Level 2 (208/240 volt) station, featuring a SAE J1772 plug
    - Be purchased, not leased
    - Be approved for sale and use in Canada (i.e. cUL, cETL, CSA certification)
    - Be installed by a licensed electrician (work to be completed under appropriate permit and installed to meet Canadian Electrical Code requirements);
    - Have activated communication and data tracking abilities OR be connected to a dedicated revenue grade meter for the charging station or group of stations;
    - Be in operation at the project location for five years.
- Another important component of the charging station is whether you purchase a “smart” station or a “basic” station. The main difference between the two is that a “smart” station will be capable of tracking consumption and usage while a “basic” station will not. If you prefer to purchase a “basic” station you will be required to install a dedicated revenue grade meter for the station or group of stations.

How many charging stations can I receive funding for?

- You can apply for a maximum of two charging stations per building.

What costs are eligible for funding under the program?

Eligible costs include, but are not limited to:

- The cost of the charging station equipment;
- Materials required for installation of the charging station (INCLUDES wiring for future charging stations);
- Labour and construction costs for installation of the charging station;
- Electrical or other permits;
- Electrical or parking area design plans;
- Signage;
- Costs occurring AFTER the program launch date (March 27, 2017) and BEFORE the project deadline November 30, 2017.

Ineligible costs include, but are not limited to:

- Painting of parking area;
- Installation of non-EVSE infrastructure (e.g. 110V outlet for vacuum cleaner);
- Communication costs between property management and residents (e.g. notices, letters, etc.);
- Copy or documentation fees;
- Monthly or annual subscription fee;
- Taxes paid on the labour, charging station, material, and any other associated costs;
- Costs occurring BEFORE the program launch date (March 27, 2017) and AFTER the project deadline November 30, 2017;
- Costs for charging infrastructure that are already required under building codes or other program or regulatory requirements.

Why do I need to oversize the conduit?

- An over-sized conduit is required to allow access to charging for future residents.
- The conduit must allow for wiring of a total of six charging stations rated at 40 amps each, or the total number of parking stalls, whichever comes first.
- In some cases a building might not have the electrical capacity for six charging stations, but future demand might require buildings to upgrade electrical capacity. In this case, installing an over-sized conduit now helps to decrease costs in the future.
- Additionally, some buildings might explore the ability to manage electrical consumption amongst a group of stations. Sometimes referred to as load management, power management, or load sharing, this technology offers the ability to connect multiple charging stations.

What is load management?

- Load management is a technique where multiple charging stations share the same electrical line. This is useful in cases where there isn't enough electrical capacity for all the required charging stations.
- For example, if an electrical panel only has capacity for 2 charging stations, but residents want access to four then load managed stations can allow the installation of those four charging stations. This is done by moderating the electricity consumed by the charging stations to prevent the stations from consuming too much electricity and blowing a fuse.
- This helps to avoid costly upgrades to the electrical panel in MURBs and optimizes charging capacity regardless of the number of residents wanting to charge their EVs.
- The Manufacturer & Supplier List identifies which manufacturers offer load management capable charging stations.

How do I convince my building manager, strata council, and/or fellow residents that a charging station would be a great benefit?

- Metro Vancouver has developed a website: www.evcondo.ca that offers steps and tips in how to go about getting approval and installing a charging station in your building.
- The Plug in BC site also has information on the benefits of charging stations and EVs in general. please visit the Navigating Stratas page on the Plug in BC website for additional guides and checklists. A useful tool on this page are Strata Bylaw & User Agreement templates.

What do I need to do to apply for the incentive?

There are **three steps** in this program.

1. The FIRST step is to get a quote from a contractor for purchase and installation of charging station that meets program requirements.
2. The SECOND step is to apply for funding by filling out the Application Form. This ensures that applicants don't go out to purchase charging stations they may not receive a rebate for.
3. The THIRD step is to submit a final report once the charging station is installed AND operational. **Information on the final report is emailed to applicants when they are approved for the program**. Once this is submitted and approved you'll receive a rebate cheque in the mail.

If I have a question not listed here, whom do I contact?

- You can contact Ryan Davis at Fraser Basin Council: rdavis@fraserbasin.bc.ca or 604-488-5365.
- Make sure to include the applicant name you applied to the program with if you have one in the subject line or voice message.

Manufacturer & Supplier List

Below is a list of charging station manufacturers, technology, and local suppliers. In some instances you can order a charging station directly from the manufacturer. In other cases, you must go through a supplier. Additionally, some suppliers can also perform the installation of the charging station. Clicking on the manufacturer or supplier name will re-direct you to their website or provide contact information for you to reach them. For a more complete list that includes units and product details please click here.

This list is **not exhaustive** and is only meant to offer some assistance in researching different brands and suppliers. This list does not serve as an endorsement of any manufacturer or supplier. If you would like to be added to this list please contact Ryan Davis at rdavis@fraserbasin.bc.ca.

For information on how much charging stations and installation typically cost please see the FAQ. Additionally, a document has been prepared that highlights questions that should be considered when purchasing a charging station.

* If units do not have data tracking capabilities (e.g. electricity consumption, length of time used, etc.) you must install a dedicated revenue grade meter for the charging station or group of stations. If a meter is used, one from BC Hydro is preferred. Read the FAQ to find out how to install a new meter.

Manufacturer	Data Tracking*	Load Management	Local Supplier
AddEnergie	All units	All units	Cascadia Sales; Cielo Electric; Electrum Charging; PowerPros Electric: Renegade Electric
AeroVironment	No	On some units	Cielo Electric; Perkuna Engineering; PowerPros Electric
BMW	On some units	On some units	BMW
Bosch	No	No	Cielo Electric; Big Green Island; Electrum Charging: Renegade Electric
ChargePoint	All units	On some units	Autochargers; Big Green Island; Electrum Charging; Foreseeson; Perkuna Engineering; PowerPros Electric
Eaton	No	No	Chris Smith; Cielo Electric; PowerPros Electric; Westburne; Wesco
EVSE LLC	All units	On some units	EVSE LLC
Elmec	No	No	Cielo Electric; Elmec
Legrand Canada	No	No	Legrand Canada
Leviton	On some units	On some units	E.B. Horsman & Son;

			Cielo Electric; Nedco; PowerPros Electric: Renegade Electric
Liberty Plugins	All units	Yes	Liberty Plugins
JuiceBar	On some units	On some units	Paul Young
PowerPost	No	No	PowerPost
Schneider	On some units	On some units	Cielo Electric; EECOL Electric; Nedco; PowerPros Electric
SemaConnect	All units	On some	Cielo Electric; Eric Smith
Siemens	On some units	On some units	Cielo Electric; Home Depot; Motorize
Sun Country Highway	Optional on all units	Optional on all units	Cielo Electric; Perron Electric; PowerPros Electric; Sun Country Highway; Motorize
WattZilla	No	No	WattZilla